

## ABSTRACT

### LIQUID CRYSTAL MICRO DISPLAY

The invention relates to liquid crystal matrix micro displays, and in particular those which are embodied on a monolithic silicon substrate in which are integrated the electronic circuits for control of a matrix array of liquid crystal cells.

The matrix comprises, for each dot at the crossover of a row and of a column, an elementary electronic circuit for controlling an elementary liquid crystal cell situated at this crossover. This circuit comprises at least one storage capacitor ( $C_a$ ,  $C_b$ ) for storing for the duration of an image frame an analogue voltage applied by the column, a first terminal of the storage capacitor being linked to the gate of the transistor ( $T_a$ ,  $T_b$ ), and, in series between two voltage supply terminals, an elementary current source ( $SC_1$ ) and a switching transistor ( $T_a$ ,  $T_b$ ), the drain of the switching transistor being linked to the liquid crystal cell (LC). A periodic voltage ramp, common to all the cells of at least one row, is applied to a second terminal of the storage capacitor of the cells of this row.

Figure for the abstract: Figure 2